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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/584,201 | 06/23/2006 | Sophia Ebert | 291966US0PCT | 9150 |

22850 7590 07/06/2010
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| EXAMINER | |
| OLADAPO, TAIWO | |

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| ART UNIT | PAPER NUMBER |
| 1797 | |

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| NOTIFICATION DATE | DELIVERY MODE |
| 07/06/2010 | ELECTRONIC |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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|------------------------------|--------------------------------------|-------------------------------------|--|
| Office Action Summary | Application No. 10/584,201 | Applicant(s) EBERT ET AL. | |
| | Examiner TAIWO OLADAPO | Art Unit 1797 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 April 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3,5-11,13 and 14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3,5-11,13 and 14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

1. The amendment dated 04/07/2009 has been considered and entered for the record. The amendment does not overcome the previous rejections which are maintained. The newly added claim is also rejected below.

Claim Rejections - 35 USC § 103

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1, 3, 5 – 11, 13, 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pauls et al. (US 6,274,381) in view of Oppenlander et al. (US 6,533,830)

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5. In regards to claims 1, 3, 10 – 11, Pauls teaches a method of invisibly tagging liquid petroleum products such as fuels, heating oils, lubricating oils etc, with invisible dyes (title, abstract). Pauls teaches the dyes are stable when combined with additives such as deposit control agents (dispersants) and detergents according to the claimed limitations (column 4 lines 52 – 54). The dyes are anthraquinone having, i.e., a structure of formula (I) which is similar to the compounds of formula (I) and (II) in the claim (column 5 lines 1 – 17). Pauls teaches the compound having NHR^1 and NHR^2 groups wherein R^1 and R^2 can be C_1 to C_{12} alkyl. This meets the limitations of the structure of formula (II) in the claim when X is hydrogen, m is 0, and Z^1 and Z^2 are hydrogen, and R^1 and R^2 are C_1 to C_{20} alkyl in the compound of formula (II) according to the claim. The compound of Pauls also meets the limitations of formula (I) in the claims which is a genus to the compound of formula (II). Pauls teaches the dyes can be used in the form of solutions which are concentrates to facilitate blending and distribution in the petroleum product such as without limitations, xylene, toluene, petroleum fractions etc (column 7 lines 18 – 25). Pauls does not particularly recite the carrier oils of claim 1.

Oppenlander teaches polyalkene alcohol polyalkoxylates are suitable as carrier oils for additives such as for detergents and dispersants in fuels and lubricant compositions similar to Pauls (abstract). Oppenlander teaches the carrier oil can be present at from 0.1 up to 80% of the concentrate which leaves a remainder of from 20% up to 99.9% of other additives such as detergents and dispersants in the concentrate which overlaps the claimed ranges (column 4 lines 26 – 34).

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In the case where the claimed ranges “overlap or lie inside ranges disclosed by the prior art” a prima facie case of obviousness exists. *In re Wertheim*, 541 F.2d 257, 191 USPQ 90 (CCPA 1976); *In re Woodruff*, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir. 1990).

It would have been obvious for one of ordinary skill in the art at the time of the invention to have used the carrier oil of Oppenlander for preparing additive concentrates according to the invention of Pauls, as Oppenlander teaches the carrier oils are suitable for use in fuel and lubricant compositions.

6. In regards to claims 5, 13, Pauls and Oppenlander combined teach the concentrate comprising liquid petroleum based heating and lubricating oils which are mineral oils, the additives and overlapping amounts meeting the limitation of the claims; thus providing for the method of preparing an additive concentrate comprising mineral oils, detergents and anthraquinone additives which intrinsically performs the intended functions of the limitation of claim 13.

7. In regards to claims 6, 7, Pauls and Oppenlander teach the concentrate having polyalkene alcohol polyalkoxylates as previously recited (abstract). The polyalkene alcohol polyalkoxylates are long chain alkoxylated alcohols of a formula (I) having a R group of C₂ to C₃₀ alkenes meeting the limitations of claims 6 and 7 (column 1 lines 55 – 65).

8. In regards to claim 8, Pauls and Oppenlander combined teach the composition wherein the carrier oil of formula (I) has R group derived from polyisobutyl radical which meets the limitation of the claim (Oppenlander, column 2 line 19).

9. In regards to claim 9, Pauls and Oppenlander combined teach the composition wherein the detergents can be polyisobutenamines, poly(iso)buteneamines, hydroxyl-containing

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polyisobutenamines, polyetheramines and polyisobutene Mannich bases (Oppenlander, column 3 lines 18 – 67).

10. In regards to claim 14, Pauls and Oppenlander combined teach the composition. Pauls recites that the dyes can be present in hydrocarbon concentrate at from about 25 to 50% by weight which meets the claimed limitation (column 7 lines 18 – 30).

Response to Arguments

11. Applicant's arguments have been fully considered but they are not persuasive.

12. The applicants argue that Pauls does not teach concentrates comprising further additives are present with the markers, nor does Oppenlander teach the claimed markers are present in the concentrate, and an assumption that the markers would be stable in additive concentrates is erroneous and hindsight reasoning. However, the argument is not persuasive since Pauls does not teach against preparing concentrate composition comprising additives and neither teaches the instability of the markers in the form of concentrates comprising other additives. At least, it would be obvious to one of ordinary skill in the art to add the additives of Oppenlander to the lubricant/fuel composition of Pauls.

13. The applicants have not sufficiently addressed the issues raised in the office action dated 04/01/2009 with respect to the scope of the inventive examples used to assert unexpected results.

14. The applicants assert there are superior unexpected results achieved by the claimed composition. However, the inventive examples used to obtain the alleged unexpected results are not commensurate in scope with the claims. The inventive examples comprise specific additives at specific amounts while the concentration of additives claimed are broader, and particularly the

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anthraquinone markers of the claimed invention are not limited to any particular concentration. Applicants therefore have not demonstrated unexpected results sufficient to rebut the case of obviousness.

Conclusion

15. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TAIWO OLADAPO whose telephone number is (571)270-3723. The examiner can normally be reached on 8:00 - 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on (571)272-1444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TO

/Ellen M McAvoy/
Primary Examiner, Art Unit 1797